

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method of crosslinking a polysaccharide comprising the steps of:

- (a) providing a metal coordinating group having a reactive site,
- (b) derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands that comprise 2,2'-bipyridine, and
- (c) crosslinking the derivatized polysaccharide having bidentate ligands with a metal ion to form a metal ligand coordination complex.

2. (Previously Presented) The method of claim 1 wherein the polysaccharide is selected from the group consisting of guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, hydroxyethylcellulose, and combinations thereof.

3. (Previously Presented) The method of claim 1 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium, cobalt, and combinations thereof.

4. (Canceled)

5. (Original) The method of claim 3 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

6. (Original) The method of claim 3 wherein step (c) occurs within a wellbore in a subterranean formation.

7. (Original) The method of claim 3 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

8-33. (Canceled)

34. (Previously Presented) A metal ion crosslinked polysaccharide produced by a method comprising the steps of:

- (a) providing a metal coordinating group having a reactive site on the metal coordinating group,
- (b) derivatizing a polysaccharide with the metal coordinating group to

produce a derivatized polysaccharide having bidentate ligands that comprise 2,2'-bipyridine, and
(c) crosslinking the derivatized polysaccharide having bidentate ligands to form a metal ion crosslinked polysaccharide.

35. (New) The metal ion crosslinked polysaccharide of claim 34 wherein the polysaccharide is selected from the group consisting of guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, hydroxyethylcellulose, and combinations thereof.

36. (New) The metal ion crosslinked polysaccharide of claim 34 wherein the derivatized polysaccharide having bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium, cobalt, and combinations thereof.

37. (New) The metal ion crosslinked polysaccharide of claim 36 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

38. (New) The metal ion crosslinked polysaccharide of claim 36 wherein step (c) occurs within a wellbore in a subterranean formation.

39. (New) The metal ion crosslinked polysaccharide of claim 36 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.

40. (New) A method of crosslinking a polysaccharide comprising the steps of:
(a) providing a metal coordinating group having a reactive site,
(b) derivatizing a polysaccharide with the metal coordinating group to produce a derivatized polysaccharide having bidentate ligands that comprise at least one bidentate ligand selected from the group consisting of: ethylenediamine; dithiocarbamate; 2,2'-bipyridine; 1,10-phenanthroline; 8-hydroxyquinolinato; and any combination thereof, and
(c) crosslinking the derivatized polysaccharide having bidentate ligands with a metal ion to form a metal ligand coordination complex.

41. (New) The method of claim 40 wherein the polysaccharide is selected from the group consisting of guar, xanthan, locust bean gum, hydroxy ethyl and hydroxy propyl derivatives of gums, hydroxyethylcellulose, and combinations thereof.

42. (New) The method of claim 40 wherein the derivatized polysaccharide having

bidentate ligands is crosslinked with a crosslinking agent comprising a compound chosen from the group consisting of copper, nickel, iron, ruthenium, palladium, platinum, iridium, cobalt, and combinations thereof.

43. (New) The method of claim 42 wherein the crosslinking agent is present in an amount up to about 500 moles of crosslinking agent per mole of polysaccharide.

44. (New) The method of claim 42 wherein step (c) occurs within a wellbore in a subterranean formation.

45. (New) The method of claim 42 wherein the polysaccharide comprises guar and the crosslinking agent is a derivative of iron or ruthenium.